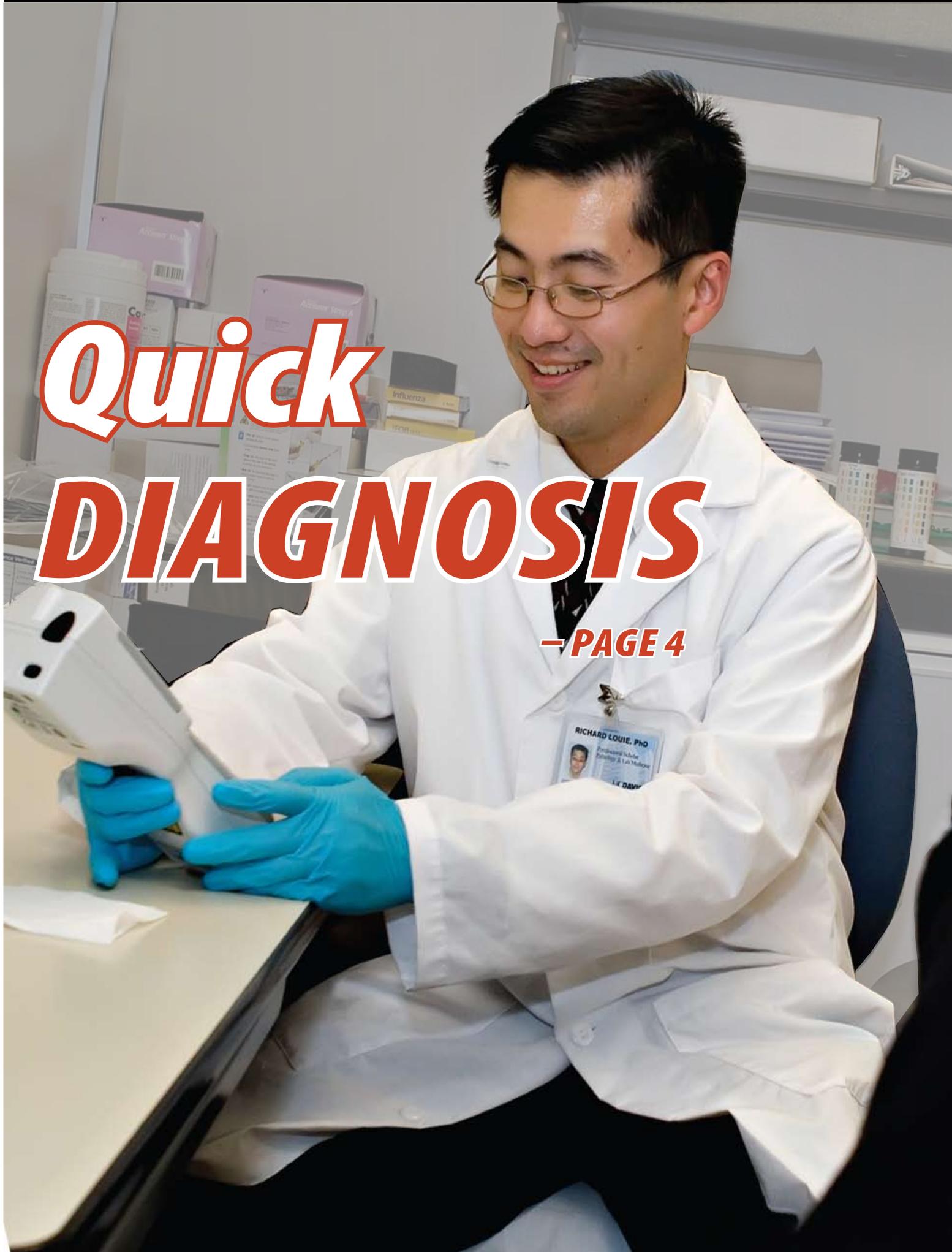


NEWSLINE

Published for the employees of Lawrence Livermore National Laboratory

November 30, 2007

Vol. 32, No. 40



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RETOOLING THE LABORATORY

Laboratory resolves to cut energy use for a savings of \$2.1 million

The Laboratory is setting one New Year's resolution early — to cut energy use by nine percent from the amount consumed in fiscal year 2007. This represents a savings of approximately \$2.1 million.

Director George Miller has appointed Deputy Director Steve Liedle to look at ways to reduce costs and make the Lab more competitive. One of the areas that has been targeted is energy consumption. While Liedle says reducing energy consumption is a serious goal, he also wants to have some fun doing it, which would involve some healthy competition across the Lab with a reward for the greatest achievement.

The yearlong campaign is kicking off at a grassroots level, with each employee asked to contribute by simply shutting down computer peripherals before leaving the office, such as turning off printers and copiers, lowering thermostats in the winter and raising them in the summer, and powering off other equipment and lights when not in use.

"This is a simple action we all can take," noted Liedle. "It all adds up and collectively, we hope to see a significant energy savings by the end of next year."

In coming months more energy saving measures will be rolled out at the institutional level. Each directorate and building will be challenged to show effective ways it has used to successfully reduce energy use.

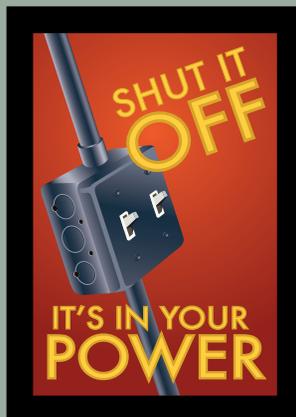
Some directorates have already taken the plunge. In the Computation Directorate for example, computer floor thermostats have been raised four degrees, significantly lowering the amount of energy to cool the supercomputers. During the effort to lower the Lab's overall energy consumption, 27 high-energy using buildings will add and/or modify their controls to improve the efficiency of their heating and cooling systems. Another Labwide effort that is being developed, modifying computer backups and updates to accommodate CPU sleep/hibernate modes, should save about 1 percent in energy use.

Plant engineering is supplying guidance several ways. Monthly per-building electric power usage comparison reports are compiled online and sent via email to each associate director facility manager (ADFM). Building-energy savings checklists have been distributed to each ADFM for facility evaluation. Adjusting heating and cooling systems, for instance, is expected to save 4.9 percent in energy consumption.

"This is something each employee can do because it is the right thing to do," said Howard Walls, Plant Engineering Department head. "As a national laboratory we should be setting an example of how we can reduce our energy use."

Progress will be reported periodically. Beyond the reduction in energy use, additional stretch goals eyed by the committee include surpassing the required energy savings, having an existing building certified by the U.S. Green Building Council for leadership in energy and environmental design, and a 2 percent reduction in water use.

Energy-reduction ideas and tips are welcome and may be submitted to the committee through save-dollars@llnl.gov.



A series of energy-themed posters will be available to employees.

Changes to Laboratory's Health Services will take place beginning Dec. 3

The Health Services Department (HSD) is initiating several changes in services as part of LLNL's cost reduction plan. These changes become effective Monday, December 3.

"By making these modifications we will be able to continue to provide core work-related employee health care services, while still maintaining several timesaving preventive services as a convenience to employees," said Dr. Jim Seward, HSD medical director.

The key changes include ceasing treatment of non-work-related injuries or illnesses, except for emergencies, and a mid-day closure of clinical activities.

The clinic (medical and nursing services) will be closed during lunch, from 11:45 a.m. to 1 p.m., while still providing for the care of patients arriving at 11:45 a.m. The medical center, Bldg. 663, will remain open for those wishing to access health promotion literature or to use the medical library or automated blood pressure machine. A receptionist will be available to schedule appointments or to answer questions. As always, employees should call 911 in an emergency.

Health Services will continue to provide care (except during lunch) in the areas of: Emergency care requiring immediate attention; management of work-related injuries and illnesses, including first aid, medical care, physical therapy, medical decontamination and case management (OSHA/WC reporting, medical restrictions and accommodation reviews); Return to Work evaluations and other evaluations concerning work status; work-related medical certification/surveillance examinations and immunization services and support, including medical certification (Human Reliability Program, respirators, etc.) and medical surveillance examinations and support (beryllium, hearing conservation, asbestos, etc.); travel (work-related foreign travel and deployment preparations); and fitness for duty evaluations.

Employee Assistance Program services will continue to be available to employees and their dependents for: short-term counseling and referral; management consultation; critical incident debriefing (grief counseling groups); and crisis intervention.

HSD services currently funded through the programs will continue to be provided, including: Healthy Heart Program; Ergonomics Early Intervention Program; ES&H team clinician activities; special foreign travel services; and Site 300 nursing services (will continue unchanged).

Effective December 3, 2007:

- Except for emergencies that cannot wait for employees to seek care through their personal healthcare providers, injuries and illnesses that are not work-related will no longer be treated.
- Some medical surveillance examination and certification exams will be eliminated or reduced in frequency. Stakeholders will be informed when these changes are determined.
- Cost for medical certification examinations, such as for Commercial Driver's Licenses and respirator medical approval, will be charged to employees' home organizations. Some costs for outside medical vendors' services will also be charged.
- Preventive health screening (e.g., blood pressure), flu immunizations for 2007, maintenance allergy shots and tuberculosis skin testing will be available only between the hours of 2 p.m. and 4:15 p.m. (appointments preferred).
- Self-pay fasting cholesterol and PSA screening will be by appointment only.

Questions concerning HSD's services should be directed to Kathleen Noonan at noonan2@llnl.gov or 3-8999.

Lab alters hiring, job posting practices

The Laboratory is making some changes to its posting and hiring practices in the wake of workforce restructuring.

Tammy Jernigan, associate director of Strategic Human Capital Management, announced the changes in an interdepartmental memo.

All principal associate directors (PADs) will submit staffing/hiring plans to the Director's Office to ensure the Lab proceeds cautiously with hiring activities. Jernigan said hiring will continue at a "very conservative level and be monitored against hiring plans."

The Director's Office will review and approve external hiring requests, including supplemental labor personnel. A lateral or promotional hire of an internal employee on a posted position, which does not effect a change in the employee's appointment status, requires approval at the PAD and Strategic Human Capital levels.

PADs have been given discretion to laterally reassign employees within the PAD in the same job family and pay grade, when it is necessary to facilitate workforce management.

Hire requests for Lab associates and fixed-term retirees must include justification that directly tie to meeting immediate programmatic and transfer-of-knowledge needs.

Requests to convert flex-term to indefinite status should be postponed at this time.

An institutional brokering committee, chaired by Jernigan and Engineering Associate Director Steve Patterson, will review all postings to facilitate placement of employees in currently unfunded positions.

After the brokering review process, unfilled positions may continue to be posted internally and/or externally if a suitable candidate is not available. However, "internal only" postings will be limited to career indefinite employees.

For more information, contact Marina Gonzalez, Employment Division leader, 3-7904, or designated employee specialists.



REMINDER

Post-retirement survivor benefit notice

If you are an employee with a disabled dependent child or dependent parents, you may benefit from additional information regarding differences between TCPI and UCRP with respect to postretirement survivor continuance benefits. Contact Ralph Howard, 3-6658, for additional information.

Leave without Pay

With the holidays approaching, employees are reminded of the Lab policy regarding use of leave without pay (LWOP) coupled with a scheduled holiday. Employees who take leave without pay prior to or following a holiday will not receive pay for the holiday.

Full-time career employees receive holiday pay when on pay status the last scheduled working day before the holiday and the first scheduled work day following the holiday.

Pay status means employees are receiving payment for the day — either as time worked, vacation, or sick leave.

Payroll to eliminate paper paystubs

As a cost cutting initiative, effective Jan. 1, 2008, the Payroll Office will no longer print and distribute Payroll Deposit of Advice statements (paystubs). Eliminating paper pay stubs will save the Laboratory approximately \$40,000 per year.

Employees are reminded that they can view and print their own Payroll Deposit of Advice Statement through LAPIS Self Service.

To access this feature, go to the existing Self Service menu in the LAPIS application by simply typing LAPIS in your browser URL window or go to the Web. Sign in using your PAC and OUN, select Self Service from the menu on the left, select then click on "Payroll and Compensation," and then click on "View Paycheck." Click on "Printable Version" to print a copy or select "View a Different Paycheck" to view and print prior paystubs.

For more information or assistance, e-mail Payroll or phone the Payroll Help Desk, 2-9132.

Employees send in suggestions to cut costs

Set copiers to make double-sided prints. Reduce or eliminate binder copies of reports. Reduce the number of color printers. Use alternative fuel vehicles within the Lab fleet. These are a few of the more than 100 suggestions that come in to the save-dollars e-mail at the Lab.

The Director's Office set up the e-mail to solicit employees' suggestions, following an announcement earlier this month that the Lab would go through significant restructuring in the wake of budget shortfalls.

All suggestions go to a special "kitchen cabinet" led by Deputy Director Steve Liedle, to look for ways to reduce Lab operating costs. The committee will consider the various suggestions and communicate any actions via *Newsline* and *News-Online*.

"We are getting a number of worthwhile suggestions from our employees," Liedle said. "I encourage employees to continue providing their input to help our Laboratory reduce its costs and become more efficient."

While many of the suggestions will take some study by the committee, Liedle said there are a number of things employees can do individually to help the Lab. The Laboratory is launching an effort to reduce energy consumption by 9 percent below the 2003 level. Employees are encouraged to do their part by shutting down computers at night, turning off printers and copiers, reducing the use of space heaters, and lowering office thermostats by a degree.

In the meantime, employees are encouraged to continue sending their suggestions to reduce costs and energy to save-dollars@llnl.gov.



Editor's note: Following transition to management under Lawrence Livermore National Security, LLC, several rumors have cropped up regarding the Lab's policies and procedures. Newsline will use this space to address these issues regularly.

Rumor: Payment in lieu of jury duty will no longer be available to Laboratory employees.

Fact: Payment in lieu of jury duty will continue to be reimbursed, in full, per Lab policy.

Rumor: The holidays that were once available to employees are being discontinued.

Fact: Employees will continue to receive paid time off for the same holidays they received prior to transition. A list of holidays for 2008 is shown in the accompanying chart.

Rumor: Congress/DOE/NNSA/Bush administration is trying to destroy the Lab so it can be shut down.

Fact: Though the Lab will undergo some consolidation of programs under DOE's complex integration efforts (e.g., moving fissile materials offsite), Secretary Sam Bodman and NNSA Administrator Tom D'Agostino have reiterated the Laboratory will continue to play a key role in the nation's national security missions.

Rumor: The Director's Office and PAD/AD offices are spending Lab money on holiday parties even as people will be released from work just before the holidays.

Fact: Holiday parties are held at the discretion of each AD/PAD office. The Director's Office annual holiday party is held offsite and is paid for by the participants, out of their own pocket. Funds for office holiday parties are unallowable and must be paid for by the employees. They do not come out of the Lab budget.

Lab Vacation Schedule for 2008

Jan. 1, 2008	Tuesday	New Year's
Jan. 21, 2008	Monday	Martin Luther King Jr. Day
Feb. 18, 2008	Monday	President's Day
Mar. 24, 2008	Monday	Spring Holiday
May 26, 2008	Monday	Memorial Day
July 4, 2008	Friday	Independence Day
Sept. 1, 2008	Monday	Labor Day
Nov. 27, 28, 2008	Thursday, Friday	Thanksgiving Holiday
Dec. 25, 26, 2008	Thursday, Friday	Christmas Holiday
Jan. 1, 2, 2009	Thursday, Friday	New Year's Holiday

SCIENCE NEWS

Grant focuses on point-of-care medical testing

By Stephen Wampler
Newsline staff writer

Doctors one day may be able to diagnose bloodstream infections within one hour rather than waiting a day to several days for conventional test results from labs.

And, instead of transporting a blood sample to a hospital, doctors may well have the capability to render a diagnosis at an emergency shelter or at the scene of a disaster.

These and other advances are expected to result from a five-year, \$8.5 million grant awarded recently to doctors, scientists and engineers who are part of a team from UC Davis Health System and the Laboratory (LLNL) that will focus on point-of-care testing (POCT). POCT is defined as diagnostic testing at or near the site of patient care.

The grant, from the National Institute of Biomedical Imaging and Bioengineering (NIBIB), part of the National Institutes of Health, will fund the development of two prototype instruments that simultaneously detect five bacterial and fungal pathogens. The grant also funds evaluations of other exploratory diagnostic technologies intended to prepare the nation for future disasters.

The work will be undertaken through the UC Davis-LLNL Center for POC Technologies, which is part of the newly established NIBIB POC Technologies Research Network.

“The goal of our center is to improve the accessibility, portability and field robustness of POC instruments for critical-emergency-disaster care in community hospitals, rural areas and disaster response sites,” said Gerald Kost, professor of Pathology and Laboratory Medicine and director of the POCT Center at UC Davis Health System.

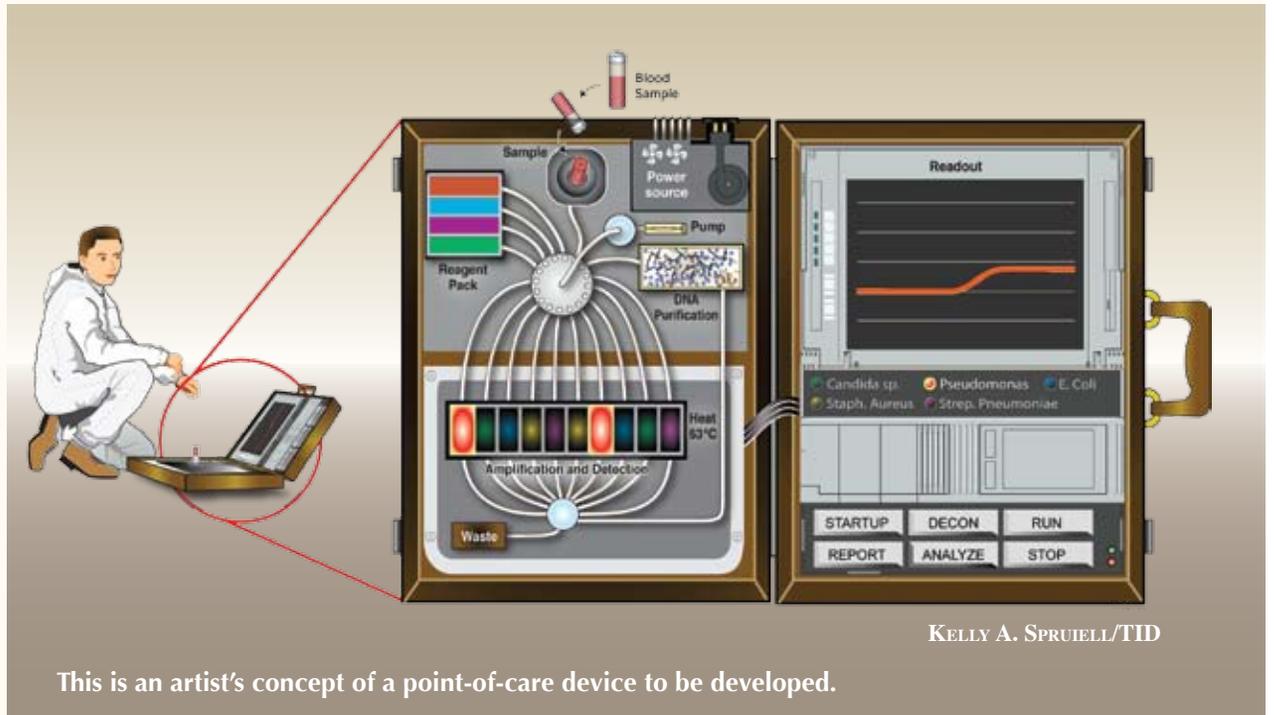
Events during Hurricane Katrina demonstrated the basic feasibility of POCT, but follow-up laboratory experiments showed that current equipment is not adequate for field use, said Kost, the grant’s principal investigator.

“We need rapid diagnostics and rugged instruments for use in disasters,” Kost said. “Rescues were slowed during Katrina because hospitals were out of commission. Doctors didn’t have adequate tools needed to make fast diagnoses; treatment was delayed. Instruments could not stand the environmental stresses.”

Even longer delays occurred in the 2004 tsunami, which Kost studied in the hard-hit provinces of southern Thailand, following his term there as a Fulbright Scholar.

“Research is needed to develop field-worthy, battery-operated devices robust enough to withstand extreme ranges of humidity, temperature and altitude encountered during rescue operations,” Kost said. “Reagents, test strips and quality-control materials must withstand the same harsh conditions, because it is difficult or impractical to transport materials in environmentally controlled containers that are either refrigerated or heated.”

The diagnostic instruments to be developed will be easy to use with minimal training and rugged, so they can be deployed in challenging



KELLY A. SPRUIELL/TID

This is an artist's concept of a point-of-care device to be developed.

environments, said LLNL chemist Ben Hindson, who with chemical engineer John Dzenitis, is directing the grant work at the Laboratory.

“We see these technologies as assisting medical personnel to be able to make fast and accurate disease diagnoses, so they can administer the proper medicine and save lives during natural disasters,” Hindson explained.

Under the grant, the LLNL-UC Davis research team will develop two prototype detection instruments — one for hospital settings and one that is field portable.

UC Davis researchers will assist with the instrument design, evaluate and clinically test prototypes, solicit input from users on what works and what doesn’t work, educate health care teams, and train rescue workers to use the devices, among other tasks.

The LLNL Pathogen Informatics Group, with assistance from UC Davis researchers, will use its capabilities to design unique DNA signatures or assays for use with the new instruments. The five pathogens for which unique identification signatures will be developed under the grant are:

- Methicillin resistant *Staphylococcus aureus* (MRSA) — a bacterium associated with catheter-related line infections, and skin and soft tissue infections. MRSA also appears in community settings, such as schools. It is highly virulent and carries a gene that confers resistance to the antibiotic methicillin.

- *Pseudomonas aeruginosa* — a bacterium often linked to hospital-acquired bloodstream infections and associated with pulmonary complications, such as respiratory distress syndrome. People whose wounds have been contaminated with fresh water or water-soil mixtures are more likely to contract infections from this bacterium.

- *Escherichia coli* — one of the more common organisms found among patients who contract hospital-acquired infections. This pathogen also is the most frequent community-acquired bacterium in urinary tract infections and occasionally shows

up in food products, such as contaminated ground beef and salad greens.

- *Streptococcus pneumoniae* — the most common cause of severe community-acquired pneumonia. A survey of UC Davis Medical Center intensive care staff found that this bacterium was one of the key pathogens identified by clinicians, who said more rapid detection could help ensure early appropriate antimicrobial treatment.

- *Candida* yeast infections — These infections affect people with weakened immune systems, such as transplant recipients on immunosuppressants, cancer patients receiving chemotherapy or patients with acquired immune deficiency syndrome (AIDS).

“These five pathogens were selected based on their clinical significance, occurrence in hospitalized patients, threat to the community, and frequency of being isolated from the wounds of victims of severe weather- and flood-related natural disasters,” Kost said.

Infections with any one of the five pathogens can lead to the complex disease syndrome of sepsis, a systemic response leading to widespread and uncontrolled activation of inflammation and coagulation pathways. Sepsis represents one of the primary causes of death in hospitalized patients worldwide.

As envisioned, blood samples would be loaded into the LLNL-UC Davis instruments, which would automatically handle all of the processing steps.

Instead of relying on the polymerase chain reaction (PCR) technique, the instruments will use a new DNA amplification method called loop mediated amplification (LAMP).

The LAMP method uses a portion of the *Bacillus stearothermophilus* DNA polymerase protein, an enzyme that splits the double strand of DNA and allows it to be copied at a single temperature (63 degrees Celsius or 145 degrees Fahrenheit), rather than using multiple cycles of heating and cooling, as PCR

Lindl reviews laser program successes in DDLS

By Nancy Garcia
Newsline staff writer

The three-decade countdown to experiments to ignite a controlled thermonuclear burn using the world's largest laser is in the home stretch, said John Lindl, chief scientist for the Laboratory's National Ignition Facility (NIF) and Photon Science Directorate.

He made his remarks at a Director's Distinguished Lecture on Tuesday in honor of receiving the 2007 American Physical Society's James Clerk Maxwell Prize for Plasma Physics. This honor had also been received earlier by his former boss and retired Laboratory director John Nuckolls. Nuckolls proposed achieving laser-driven inertial confinement fusion in a seminal 1972 *Nature* paper, soon after lasers were demonstrated and adopted for laboratory use.

Lindl was hired the same year the paper appeared. "It's been quite a ride," he said. "It's been a continual series of almost impossible challenges, but we are almost there."

The NIF Project is almost complete. By the end of July, half of NIF's beamlines were performance-qualified and produced 2.1 megajoules of 1 micron light. The reset of the 1 micron system is rapidly approaching completion and the NIF project team will bring beams to the target chamber center shortly. "We're cruising," Lindl remarked.

Ed Moses, director of the

NIF and Photon Science Directorate, and the NIF project team "deserves an enormous amount of credit for pulling this off."

Experiments expected to begin around September 2008, using half of the facility's planned 192 beamlines, will define specifications for full operation when the facility is complete in 2009.

Just what would constitute an adequate demonstration of ignition was actively debated as part of a 1996 National Research Council review of NIF. Essentially, Lindl said, ignition has occurred when a sustained burn is propagated through the fuel with no additional external input of energy. The NRC panel concluded that ignition would have been unambiguously achieved when the thermonuclear energy output equaled the laser energy delivered to the target. Reaching that breakeven point or a net energy output would substantiate the physics basis for laser fusion as a potential means of generating electrical energy.

The opportunity to construct NIF, he added, came about because of both political and technical developments. The Stockpile Stewardship Program, and NIF's role in that program, are an outgrowth of the end of the Cold War, the subsequent suspension of nuclear testing by President George H. W. Bush, and the support by President Clinton for a comprehensive test ban.

Equally important to



JACQUELINE MCBRIDE/NEWSLINE

The Laboratory's James Clerk Maxwell Prize winners posed at the celebratory reception Tuesday. From left to right are Dick Post, Bill Kruer, John Lindl and John Nuckolls.

understanding fusion in a defense context is the potential to create a source of clean, sustained energy, he added. "There's lots of exciting stuff that NIF is going to be able to do in the next decade and beyond."

On the technical side, experiments in the 1970s showed that laser energy can heat and compress a pellet of deuterium-tritium fuel to create inertial confinement fusion (ICF).

Laboratory researchers completed the first indirect-drive experiments using the Cyclops laser in 1976. "We had

almost no diagnostics," Lindl recalled. "We could see if we generated neutrons and we had a rough idea of the X-rays emitted from a target — that was about it. This first look at indirect-drive, however, gave us an indication of what we were going to be dealing with for the next multiple decades." Those experiments were followed by work on the Argus and Shiva systems from 1979 – 81. Showing that radiation-drive temperatures needed for ignition

See LINDL, page 8

DETECTION, from page 4

requires.

Initially, using a blood sample from one person, the instruments will run a simultaneous test for all five pathogens within one hour. Eventually, the team hopes to outfit the instruments with the capability to run tests for all five pathogens within an hour for several people at the same time, Hindson said.

Several LLNL-developed biodetection technologies, such as the Autonomous Pathogen Detection System, that are designed to protect against bioterrorism, will provide some of the foundational technologies for these new POC instruments.

One strength of the UC Davis-Livermore team is its ability to leverage the "bench to bedside" skills of the UC Davis Clinical and Translational Science Center (CTSC) headed by Lars Berglund. The CTSC was es-

tablished at UC Davis in 2006 by the National Institutes of Health as one of the NIH's 12 initial national centers for improving the yield of medical research.

The grant also draws on the infrastructure provided by the UC Davis-LLNL Center for Biophotonics Science and Technology (CBST), which is headed by Dennis Matthews of both UC Davis and LLNL. CBST was funded by the National Science Foundation in 2002 and creates optical technologies for medicine and bioscience.

In addition to the UC Davis-LLNL Center for POC Technologies, the NIBIB has established three other centers for cooperative research: emerging neurotechnologies, at the University of Cincinnati; sexually transmitted diseases, at Johns Hopkins University; and diagnostics for global health, at PATH Seattle and the University of Washington.

UC Davis Health System is the leading tertiary

care provider for a 33-county region of Northern California. Research strengths at UC Davis Health System include clinical and translational science, stem cell science, infectious diseases, vascular biology, neuroscience, cancer, functional genomics and mouse biology, comparative medicine, combinatorial chemistry and nutrition, among many others.



On the cover:
UC Davis' Dr. Richard Louie, a fellow at the UC Davis-LLNL Center for Point-of-Care Technologies, operates a POC device. Photo credit: Karin Higgins, UC Davis.

i.want ads

Due to the high quantity of ads and space limitations, these want ads have been abbreviated. For the complete ad listings, refer to the internal Website: <http://www.r.llnl.gov/pao/news/wantads.html> or for the latest pdf download and retiree information, see the external Website: <http://www.llnl.gov/pao/employee/>. Please note that these ads appear on the Web.

Date of ads: Approx. Nov. 20 to Nov. 27. Ads appear on the Web for seven days.

AUTOMOBILES

1986 Dodge Ram Royal 150 van. \$999. 8 Passenger, 318 V8, Air, AM/FM, Tape, 2 inch receiver (towing), four speed manual, 138K miles, Michelin radials, passed smog. 925-443-8253

1992 Porsche C4. \$16,000 OBO. White, black leather. sunroof, CD, great condition. 209-745-0420

1994 Isuzu Trooper 4x4. \$500. 200K plus miles, rebuilt engine with about 80K miles, 5 speed. not drivable. 530-478-1991

2003 Honda Element AWD. \$13,000 OBO. 54,000+ miles, real time four wheel drive, 17inch alum wheels. 209-834-1374 or 209-224-4244

2004 Ford Taurus SES. \$7,500 OBO. 6K miles, new tires, good condition, seats 6. 925-294-9651

2005 Toyota Tacoma double cab Pre-Runner TRD. \$22,999. OBO 41K miles, new tires. 209-914-0937

2006 Z51 Corvette. \$42,000. Fantastic condition, 16K miles. Clear bra, car is covered inside the garage. 209-627-5546

Headlamp. \$39. 2003 Toyota Camry LE, left front, minor scratch on lens surface. 925-828-2304

BICYCLES

Cervelo Dual Triathlon Bike. \$1,200. 700 Ritchey Deep Section 27 wheels, race lite Bontrager tires, Shimano 105 brakes. Sidi velcro bike shoes with clips (size 11), pedal tool, performance traveler trainer, helmet, bike rack for 2 bikes. 925-640-1806

ELECTRONIC EQUIPMENT

Computer Monitor & Fax/Copy machine. \$50 OBO Futura 18" computer monitor, 17.5 viewable screen (not a flat screen). \$30 OBO. Panasonic plain paper fax/phone/copier, all cords and manual. \$50 OBO 510-792-1538

NAD 7155 High Power Stereo Receiver. \$200. New condition, original manual and box. 925-455-4484

NAD 7155 High Power Stereo Receiver. \$200. 55 watts per channel, 3db headroom for 110 watt bursts, manual. 925-455-4484

Nintendo Wii. \$350. New in unopened box with gift receipt. 925-455-4484

Playstation 2 Games. \$10 each. Excellent condition. Titles-Zathura, Hot Shots Golf Fore, Dr. Seuss Cat In the Hat, and Tiger Woods PGA Tour 2004. 925-373-0751

Stereo System. \$25. Compact, Aiwa NSX-V50, multiple CDs, dual cassettes. Synthesized surround sound. 925-935-5004

Tivo/CD Player. Tivo DVR, like new \$20. Aiwa CD Player AM/FM cassette stereo book shelf \$35. 925-606-0480

GIVEAWAY

Bedroom Set and Recliner. Good condition. 916-797-1750

Dell computer and monitor. Dimension 3000, 17" CRT monitor. No hard drive. 925-215-0197

FURNITURE

Dresser/night stand. Night stand, 4 drawers, 19"Wx25"Hx18"D maple laminate. Dresser, 5 drawers, 46"Wx243"Hx18"D white laminate. U-haul from San Ramon. 925-828-2208

Dresser. \$50 firm Antique 4-drawer dresser with folk-art designs. 925-447-1057

Girls Twin Bed. \$65. Canopy princess, white metal. Headboard has a heart and flowers. Headboard and foot board posts have a crown for the post. 925-487-8506

Couch/loveseat plus picture. \$350. Off-white background with "spin art" design in pastel colors. Set was "for show" in front room - barely used. 209-483-9675

Ladder shelves. Regular shelf 23.5"W x 5"D on top and increases to 14.5"D. Overall the unit is 15"D x 72"H, 29lbs. Corner shelf 4.5"W x 6"D on top and 15.75"W x 11.25"D on the bottom. Overall the unit is 15"D x 72"H, 13lbs. Both solid wood, cherry stain. Regular \$80, corner \$65. 925-640-5469

Loft bed. \$40 OBO. Twin, unfinished pine, room for a kid's desk underneath. 925-449-9344

Oak entertainment center. \$75. 55" W x 54" H x 17" D, TV compartment 28" W x 22" H, 2 drawers, 4 shelves, 1 cabinet. 925-443-1279

Oak entertainment center. \$40. Glass doors cover electronics bay and CD/DVD storage. 925-455-4484

Pub table, antique hutch. Table, 36" medium oak. \$60. Hutch, 47" H x 40" W x 12" D, 2 glass shelves. \$50. 925-449-1373

Queen size bed. \$250. 4 poster, large headboard and foot board with side rails. Black stain with dark-oak distressing. 209-869-4884

Tons of antiques. Oak coffee table \$30, empire walnut dresser and library table \$250 both, beautiful mahogany player piano \$400, tabletop Victrolas \$175 and \$250, upright Victrola \$125, Zenith black face radio \$85. 925-449-0388

Antique piano. \$2,100. 1903 Chickering in very good condition. Recent tune and service. Beautiful tone and feel. 925-634-9973

HOUSEHOLD

Christmas outdoor lights. Icicle lights, net lighting, colored and white lights. Some used, some brand new. 925-243-1935

Mirrored closet door. Sliding fits an 8' opening. Good shape. U-haul from San Ramon. 925-275-9434

Lawn mower. Gas powered with gas can, runs. 925-443-4292

Delta 10" Unisaw. \$1,100 OBO. 3HP 230 V single phase, complete w/Unifence, extension table and mobile base. 510-793-5717

Granite slab - Verde Uba Tuba. \$315. Approx. 36" x 115", U-haul, San Jose. 510-792-1538

Pedestal sink with faucet. \$95. American Standard, white, porcelain, like new. Price Pfister faucet, chrome with brass accents. 925-373-3265

LOST AND FOUND

Lost - Brown leather jacket. XL Eddie Bauer, bomber jacket, Bldg. 131. 925-634-5954

Lost - Sterling silver earring. Pierced-style, hinged, square profile. Lost between Bldg. 551W and Bldg. 123 Aud. Great sentimental value. 925-640-3561

Found - U.C. Commemorative Book. Still in wrapper, in lab bike basket, near Bldg. 132N entrance. 925-447-3167

MISCELLANEOUS

Christmas décor. musical draping bells \$10, tree stand \$20, metal sleigh family \$30, Floyd and Flossie \$30, musical snowman w/ pop-up hat \$20, tree ladder \$10. 925-640-5469

E.U. 2000 Honda Generator. \$800. Brand new. 209-239-2812

File Drawers. \$35. Two-drawer metal and glass rolling drawers with seat cushion top, 31.5"H x 18.5" W x 9/10" D. Brand new. 925-640-5469

Five Disneyland 3-day Park Hopper Passes. Good through the middle of January. Four adult passes, \$150/ea. One child pass (age 3-9), \$120/ea. 530-478-1991

Gazebo. \$200 OBO. "Leaf Gazebo", 10X10, stored in garage. 925-449-5479

Gourmet Camping Kitchen. \$150 OBO. Brand new. 925-548-4382

Mountaineering Books. "Freedom of the Hills", "In the Hall of the Mountain Kings", "Annapurna", "Everest the Hard Way", many others. Some signed, some first edition, also older climbing guides. 925-447-0596

Picnic Table. \$50 firm redwood, bench seats. 925-447-1057

Scroll Saw. \$39. Dremel #167 two spd 16", cast iron const., blade storage, 7Ft. power cord, blade tension control. Accept pin & plain end blades, 3/4" blade stroke, sawdust blower, 45 Deg. tilt table. 925-828-2304

Tablesaw. \$285. Delta 10" Shopmaster model #TS350, T-square, fence, T-slot miter, cast iron table, extensions. 22.25 x 38.5 total surface area. Roll around stand, owner's manual. New adjustable DADO. 925-447-1009

Warrior Home Games. \$75 each.

Warriors lower bowl, Section 107, Row 24. All 3 for one game for \$180. Dec. 05 & 26. Jan. 13, 21 & 24. Jan. 27, only 1 ticket available. 707-373-7401

MOTORCYCLES

1998 Kawasaki Concours Z1000. \$3,000. 32,000 miles, well maintained. Corbin seat with backrest, after-market pipes, fresh tune-up. 209-968-9236

1999 BMW R1200C. \$5,500. Low miles, with windshield and saddlebags. 580-4468

2000 Yamaha Blaster 200. \$2,200. 22 x 11 x 9 rear tires new hole-shot, front tires 50 % tread left hole-shot, oil injector removed/pre-mix gas only, Vito's Big Bore Kit 240cc. 209-495-6957

MUSICAL INSTRUMENTS

Keilwerth SX90R tenor saxophone. \$3,000 OBO. Manufactured 1995. 510-793-5717

PETS

Border Collie. 2 year old male, very intelligent, loving and loyal. Crate trained, microchipped and neutered. 209-814-8612

Cavalier King Charles Spaniel Puppy. \$700. Male, black & tan, vet checked, papers, one year health guarantee. 650-714-1612

Kitty. Black/brown spayed female, 6 months, free to good home. 925-846-9564

Yorkshire Terrier pair. Small M/F pair, desire to stay together. AKC papers, as pets. Price negotiable, crate trained. F 3.5 pounds, 10 months, spayed; M 4.5 pounds, 15 months, neutered. 925-606-5334

RECREATION EQUIPMENT

New Custom Golf Clubs with Bag and Balls. \$1,000 OBO. 13 clubs: custom made irons, drivers. 3 wood, 5 wood, 7 wood, 9 wood, all custom shafts by Stiletto. 2 custom wedges, custom putter, graphite shafts with custom heads. 2 dozen new golf balls, towel and bag. 925-783-0473

Oldie Treadmill. \$25. Narrow, better for walking than running, adjustable speed. Electric. 925-640-5469

RIDESHARING

Vanpool. Modesto/Ripon, 14 passenger van, 4 immediate full time openings. 209-544-6411

SHARED HOUSING

Room for rent. \$650. 1 mile to LLNL. Separate bath, WIFI cable included. Short-term OK. 925-784-7148

Room for Rent. \$700. Close to downtown Pleasanton. Includes utilities, shared bath, kitchen, pool, laundry, parking. 925-519-0673

TRUCKS

1997 Ford F150 Extended Cab. \$5,500. Less than 10K miles on new motor and trans. 209-456-7841

VACATION RENTALS

Cabin near Dodge Ridge. \$225 wk/end. 3 BD/2 BA, fireplace w/ wood, pool table, covered parking. 925-449-5513

Vacation -pre-Christmas (12/15-22/07). \$799 week. Heavenly, South Lake Tahoe, Dec. 15-22(Sat-Sat), 2B2B, sleeps 6, free shuttle to ski lifts. Free use of Ridge Sport Club. 925-299-0451

Kona HI. coast, 2,300 sq ft on 2 levels, 5 BD/3 BA; sleeps 12. Penthouse 3 BD/2BA avail at lower rate. WiFi, nonsmoking. Last min & Lab discounts available. 415-377-5361

Maui, HI. Kahana Reef oceanfront 1BR/1BA condominium. 925-449-0761

Palm Springs Resort & Spa. \$160 night. 2BD/2BA villa (sleeps 4-6), Palm Canyon Resort and Spa, furnished kitchen, linens and towels provided. BBQ, washer and dryer. Available 12/11-12/13 925-819-2633

Santa Cruz beach house. Near harbor, 2 BR/2 BA, spa, 4 short blocks to ocean. 925-245-1114

South Lake Tahoe Chalet. Lab Rates 3 BD/2 BA, newly remodeled kitchen, all amenities, close to all skiing. 209-599-4644

Tahoe. \$125-175/night. 3BD/2BA, sleeps 6-8. Furnished kitchen, linens and towels provided, washer and dryer. 925-813-2597

Wine Country. \$150/night. Monte Rio, 3BD/1.5 BA, sleeps 6 comfortably, remodeled kitchen. 925-513-4767

WANTED

Coins and stamps. Old silver coins, proof sets, postage stamp collections. 925-449-1294

Elliptical machine. 209-601-6874

File cabinet. Light oak 4 drawer vertical file cabinet. 209-608-1587

HP Jornada handheld PC. Prefer a later model (such as the 720 or 728). 925-961-0696

Spanish language tutor. To help son finish correspondence class. 443-243-4875

Spare mud terrain tire. Legal tread 33x12.5x15, prefer BF Goodrich, but will consider other makes. Will pay nominal fee. 925-513-4767

Treadmill with arm workout. For under \$60. 925-449-1340

Used GameBoy advanced games. For Christmas. 925-443-6603

Spare tire. 255/70R-16 tire in good condition. Willing to pay reasonable price depending on condition. 925-245-1414

PEOPLE NEWS

Celebrating Native American Indian History



JACQUELINE MCBRIDE/NEWSLINE

Mary Puthoff of the Lakota Rosebud Sioux Nation spoke at the Lab on Tuesday for Native American Indian History Month. Puthoff, a storyteller, author and historian brought artifacts of the local indigenous people and shared stories about Indian culture. "The Bay Area was a favorite place for many different tribes of indigenous people and had a large population," she said. "Because of that, it was also one of the most diverse language cultures on earth."

IN MEMORIAM

W. James Frank

(Correction: In a previous edition of Newsline, the memoriam below contained inaccurate information and is republished in its entirety here.)

W. James Frank, who worked in the Weapons and Complex Integration Principal Associate Directorate, died Nov. 12 at Kaiser Hospital in Walnut Creek after a brief illness. He was 84.

Born Sept. 4, 1923, in Kansas City, Mo., Frank started work at the Laboratory in October 1953. His career shared the same underpinnings as the Laboratory itself: The UC Berkeley advisor for his Ph.D. thesis in physics had been E. O. Lawrence. And Frank proudly admitted that Herb York personally had hired him. Frank worked on the Polaris team in A Division, where his picture with former Lab director Mike May still hangs in the hallway, showing the two holding a Polaris banner. Retired engineer Joe Keller recalled, "He helped me get computer time when it was hard to get. And he helped put me on the advisory committees for Lab computers."

He was a senior leader in A Division

and was involved in many programmatic decisions during the 1950s. He also was involved in technical reviews.

Frank retired in 1992, but continued as a Laboratory associate because of his unique expertise in interactions with the United Kingdom's nuclear weapons program. He handled administrative and technical functions relating to the Lab's interface with the United Kingdom. And he advised Laboratory visitors to England on guidelines and protocols. He was the only employee to lead the US/UK Treaty Office since the mid 1960s, having held this position for the past 36 years.

According to Richard Ward, WCI deputy principal associate director, Frank was an affable person who enjoyed hiking and opera. "He was down to earth," Ward said, "Every day for lunch it was peanut butter and jelly. And he was energetic about his work. He didn't walk the stairs to his office, he bounded up them two at a time."

Frank never married, lived alone in Livermore, and is survived by a brother, Lloyd and sister, Doris Metzger.

Services were held in Livermore, with burial to take place in Kansas City.

HELPING OTHERS MORE EFFECTIVELY

HOME contribution deadline extended through Dec. 14

There is still time to participate in the 2007 HOME Campaign. The deadline for contributions has been extended. Employees can now contribute through Friday, Dec. 14. In addition, employees who wish to make their one-time contribution can do so through Friday, Dec. 7. To make your on-line contribution or download a pledge form, go to the HOME Website at <https://home.llnl.gov/>

Make a pledge and you may win a prize

The HOME Incentive Program continues to draw pledges. If you make a donation electronically, you are instantly be entered in all drawings that have not been completed yet. If you've opted not to use the electronic donation process, once your pledge packet has been received by the pledge processing center, you will be entered into the weekly incentive drawing. Envelopes will be accepted through Dec. 14 at noon for inclusion in the HOME Incentive Program. The earlier you donate the more chances you have to win a prize. Winners are randomly selected by the HOME Campaign pledge center database from pledges received that week combined with earlier pledges that did not win a prize. Complete and submit your donation today and you may win a prize. Go to https://home.llnl.gov/pledge_incentives/index.php for details.



HOME Campaign statistics, as of Nov. 28

Employee participation — 18.16 percent

Amount donated — \$759,219

Number of employee contributions — 1,323

Lead directorate employee participation — NIF & Photon Science with 36.1 percent

Go to <https://home.llnl.gov> to view all PAD and Lab organization statistics.

Frederic Coengen

Frederic Coengen, a long-time Lab scientist and pioneer during the early days of magnetic fusion research, died Nov. 18 after a short illness. He was 88.

Coengen was born Feb. 10, 1919 in Great Falls, Mont. to Helen and Henry Coengen.

He received his doctorate in physics from the University of California, Berkeley and worked for forty-five years at LLNL, retiring in 1994. Throughout his career he published numerous papers and received multiple awards for his work in Plasma Physics. In 1989 he received a Distinguished Career Award in the area of fusion power.

Lab scientist Richard Post who worked closely with him, remembers Coengen as a hard-working, persistent researcher. "Fred's forty-five year-long professional career at the Laboratory was notable for technological innovation and pioneering experimental work in the field of magnetic

fusion research. As a research leader in the study of the Magnetic Mirror approach to fusion power, he tackled many difficult experiments with patience and persistence, making contributions both to the science and to the enabling technology that was needed to perform the experiments.

"When practical fusion power is eventually achieved, it will be as the result of notable researchers such as Coengen in laying the foundation on which fusion power systems will rest," Post said.

Coengen enjoyed spending time with his family, hiking and photography. In recent years he was an active member in the Livermore Valley Photo club and taught Photoshop at the Pleasanton Senior Center.

He is survived by his wife of 43 years, Charlene Coengen, 6 children, and 8 grandchildren.

At his request, there will be no services.

NEWSLINE

Newsline is published weekly by the Public Affairs Office, Lawrence Livermore National Laboratory (LLNL), for Laboratory employees and retirees.

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Web site: <http://www.llnl.gov/pao/>
Distribution: Mail Services at LLNL

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A day in the life of a Lab archaeologist

By Kelly Heidecker

Did you know that the Lab has an archaeologist on staff?

Would you be surprised to learn that the Lab and Site 300 are home to several prehistoric and historic archaeological sites as well as several historic buildings and districts? You shouldn't be.

California's Central Valley, including Livermore, has been inhabited by the predecessors of groups known today as the Costanoans (Ohlone) and Northern Valley Yokuts for at least the past 9,000 years. The Livermore-Amador Valley, within which LLNL is located, also experienced Spanish exploration and settlement, European and American mining, early industry and ranching. Although familiar to most, more recent history includes the establishment of this Lab — over 50 years ago — on land originally occupied by the Livermore Naval Air Station. Constructed in the 1940s, this naval air base supported the United States' war effort during World War II.

The role of the archaeologist at LLNL is to assist the DOE/NNSA in fulfilling its responsibilities under the National Historic Preservation Act. This Act requires Federal agencies to take into account the effects of their operations on historic properties and allow for a reasonable opportunity for the Advisory Council on Historic Preservation to comment on these proposed activities. An additional policy, DOE Management of Cultural Resources, establishes that preservation and protection of America's cultural heritage are important functions and responsibilities of the DOE, NNSA, and its contractors for properties under their jurisdiction. These two regulatory drivers underlie the work of the Lab's archaeologist/cultural resource specialist.

Along with other colleagues in the Environmental Protection Department, the archeologist ensures that the Lab's mission and programs are carried out in a manner that fulfills its responsibilities to protect natural and cultural resources at both sites. This includes working hand-in-hand



JACQUELINE MCBRIDE/NEWSLINE

Kelly Heidecker is the Lab's archaeologist who works out at Site 300.

with wildlife biologists, environmental scientists and analysts, and the program staff themselves.

On any given day, the Lab's archaeologist conducts a variety of activities to support the identification, evaluation and recording of the archaeological sites and historic buildings located on-site. Intensive surveys of the Livermore site and Site 300, conducted over the past 20 years resulted in the development of Geographic Information System (GIS) maps that delineate areas as more or less sensitive for encountering archaeological sites and historic buildings. Prior to any ground-disturbing activities in these locations, the archaeologist determines if any historic or culturally significant sites

exist in the project area, or are likely to be found, and if so, discusses precautions to carry out the project with minimal disturbance to the site(s).

Occasionally, the archaeologist can be found monitoring earth-moving activities if the project is close to a known site, or in an area where new sites might be found. When projects are proposed that might affect one of the five historic buildings or two historic districts (significant for their association with the Lab's involvement in the Cold War period), the archaeologist provides an evaluation of whether or not the project would cause the historic property to lose the characteristics that make it historic, and if so, suggests alternatives that would allow the project to proceed while minimizing impacts to the historic value of the property.

Stay tuned for future cultural resource columns; a series of topics is in the works. Topics will include a primer on historic building classification and the significance of this designation, as well as articles that describe LLNL historic properties and their unique characteristics and significance. Take a walk through history and the cultural side of the Lab through this series of articles.

For more information on the National Historic Preservation Act of 1966, to <http://www.achp.gov/nhpa.html>. For more information on the DOE Policy Management of Cultural Resources, see <http://www.directives.doe.gov/pdfs/doe/doetext/neword/141/p1411.pdf>.

The LLNL archaeologist/cultural resources specialist, Kelly Heidecker, can be reached at 3-8579 or heidecker2@llnl.gov.

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could be reached by reducing the laser wavelength "gave us a path forward to getting the target conditions we needed for ignition," he said.

Lindl played a central role in the Nova laser program, which ran from 1984-1999 and was a true workhorse for revealing key physics constraints which led to refining the target designs required for ignition. Some of the key physics results from Nova included precision control of capsule symmetry, effective use of laser pulse shaping to increase fuel density, and reduced hydrodynamic instability during a capsule implosion in agreement with calculations.

"A key piece of our success was development of advanced diagnostics," Lindl added. This included X-ray framing cameras, which made it possible to take movies of an imploding capsule during the nanosecond-long laser pulses, and Thomson scattering for probing the conditions of laser-heated matter inside the targets.

Advances in computing capability have been

equally important to the development of ICF. Since the start of the Advanced Simulation and Computing (ASC) effort within the Stockpile Stewardship Program, computing capabilities have increased by about a factor of 1,000. This enormous increase in capability has enabled 3D calculations of laser beam propagation, capsule hydrodynamic instability, and target symmetry that would have been impossible 10 years ago. Calculations that take a million CPU hours or more are now a central part of preparations for ignition experiments.

Summing up, he said, "We believe we can do these experiments to the precision needed. The target designs we are developing for the first ignition experiments have a credible chance for ignition, if we meet the specifications. But the integration of the laser, targets, diagnostics, experiments and modeling into a smoothly functioning system with the precision we require is a grand challenge which is likely to take a few years." Lindl went on to comment that these initial ignition experiments only scratch the surface of what NIF will be able to accomplish.

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